CLAIMS

1. A fuse structure comprising:

a first region adapted to be coupled to a voltage source;

a second region adapted to be coupled to a ground; and

a current flow region disposed between said first and second regions, said current flow region having a configuration that causes a void to be opened at a point of localized heating due to current crowding within said current flow region and that causes said void to propagate across said current flow region.

2. The fuse structure of Claim 1 wherein upon said void being opened said configuration causes localized heating due to current crowding at a point adjacent said void.

3. The fuse structure of Claim 1 wherein said current flow region is asymmetrically shaped about an axis that is essentially parallel to the direction of current flow.

4. The fuse structure of Claim 3 wherein said configuration of said current flow region defines a recess extending from one side of said current flow region into said current flow region.

5. The fuse structure of Claim 4 wherein said recess extends more than approximately halfway across said current flow region.

6. The fuse structure of Claim 4 wherein said recess is substantially symmetrical in shape about an axis that is essentially orthogonal to the direction of current flow.

7. The fuse structure of Claim 4 wherein said recess is substantially triangular in shape.

8. The fuse structure of Claim 4 wherein said recess is substantially trapezoidal in shape.

9. The fuse structure of Claim 4 wherein said recess defines a substantially straight edge extending essentially orthogonally into said current flow region, wherein said edge faces toward the direction of current flow.

10. The fuse structure of Claim 4 wherein said recess defines a substantially straight edge extending essentially orthogonally into said current flow region, wherein said edge faces away from the direction of current flow.

11. The fuse structure of Claim 1 wherein said fuse structure is for encoding information in a replaceable printer component.

12. A bus comprising:

a plurality of first segments for coupling said bus to a plurality of circuit elements; and

a second segment coupled to each of said first segments, wherein said first segments have a length sufficient for thermally insulating said second segment from said circuit elements.

13. The bus of Claim 12 wherein said bus is one of a power bus and a ground bus.

14. The bus of Claim 12 wherein said circuit elements are fuses.

15. The bus of Claim 12 wherein said first segments are substantially equal in length and substantially parallel to each other.

16. The bus of Claim 12 wherein said second segment is substantially orthogonal to said first segments.

17. A circuit comprising:

a plurality of micro fuses, wherein a micro fuse comprises a current flow region having a configuration that induces a void in said current flow region, said configuration causing said void to propagate from an initiation point across said current flow region; and

a bus coupled to said plurality of micro fuses, said bus comprising a plurality of first segments adapted to be coupled to said micro fuses, said bus further comprising a second segment coupled to each of said first segments, said second segment separated from said micro fuses by a distance that prevents said second segment from acting as a heat sink for said micro fuses.

18. The circuit of Claim 17 wherein said configuration defines a recess extending from one edge of said current flow region into said current flow region, wherein said initiation point is proximate a point where said recess extends furthest into said current flow region.

19. The circuit of Claim 18 wherein said recess is substantially triangular in shape.

20. The circuit of Claim 18 wherein said recess is substantially trapezoidal in shape.

21. The circuit of Claim 18 wherein said recess defines a substantially straight interface extending essentially orthogonally into said current flow region, wherein said interface faces toward the direction of current flow.

22. The circuit of Claim 18 wherein said recess defines a substantially straight interface extending essentially orthogonally into said current flow region, wherein said interface faces away from the direction of current flow.

23. The circuit of Claim 17 wherein said micro fuses are approximately equidistant from said second segment.

24. The circuit of Claim 17 wherein said micro fuses are for encoding information in a replaceable printer component and wherein said bus is for blowing said micro fuses.

25. A fuse structure comprising:

a first region adapted to be coupled to a voltage source;

a second region adapted to be coupled to a ground; and

a current flow region disposed between said first and second regions, said current flow region asymmetrically shaped about an axis that is essentially parallel to the direction of current flow through said current flow region, said current flow region having a configuration that defines a recess extending from one side of said current flow region into said current flow region.

26. The fuse structure of Claim 25 wherein said recess extends more than approximately halfway across said current flow region.

27. The fuse structure of Claim 25 wherein said recess is substantially symmetrical in shape about an axis that is essentially orthogonal to the direction of current flow.

28. The fuse structure of Claim 25 wherein said recess is substantially triangular in shape.

29. The fuse structure of Claim 25 wherein said recess is substantially trapezoidal in shape.

30. The fuse structure of Claim 25 wherein said recess defines a substantially straight edge extending essentially orthogonally into said current flow region, wherein said edge faces toward the direction of current flow.

31. The fuse structure of Claim 25 wherein said recess defines a substantially straight edge extending essentially orthogonally into said current flow region, wherein said edge faces away from the direction of current flow.

32. A method of blowing a fuse, said method comprising:

providing a current through a current flow region of said fuse, said current flow region asymmetrically shaped about an axis that is essentially parallel to the direction of current flow through said current flow region, said current flow region having a configuration that defines a recess extending from one side of said current flow region into said current flow region;

forming a void at a point within said current flow region due to localized heating at said point; and

propagating said void across said current flow region to blow said fuse.

33. The method of Claim 32 wherein said recess extends more than approximately halfway across said current flow region.

34. The method of Claim 32 wherein said recess is substantially symmetrical in shape about an axis that is essentially orthogonal to the direction of current flow.

35. The method of Claim 32 wherein said recess defines a substantially straight edge extending essentially orthogonally into said current flow region.

36. A fuse structure comprising:
means for coupling to a voltage source;
means for coupling to a ground; and
means for forming a void at a point within a current flow region of said fuse structure due to localized heating caused by current crowding at said point and for propagating said void across said current flow region.

37. The fuse structure of Claim 36 wherein said means for forming and propagating further comprises means for causing localized heating due to current crowding at a point adjacent said void.